

UPLANDS INITIATIVE FIELD PROJECTS 2004-5

North Berwyn (North) Survey Area

North Wales

Archaeological Survey Report



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SUMMARY

An archaeological identification survey of the North Berwyn (North) area of North Wales (SJ 310 340 centred) was undertaken in March and April 2005 (Fig 1). The work was undertaken by Oxford Archaeology North (OA North) on behalf of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) as part of the Uplands Initiative. The fieldwork consisted of an identification survey to identify, locate and describe archaeological and historical features within the defined survey area.

The survey area of North Berwyn (North) is on the northern edge of the Berwyn hills overlooking the Edeirnon valley and the lowland around the River Dee. Berwyn (C)3 was designated as an Historic Landscape within the Register of Landscapes of Outstanding Historic Interest in Wales. Several of the areas on the south and east end of the Berwyn hills have previously been surveyed by OA North (2003 and 2004a) and by Clwyd Powys Archaeological Trust (Silvester 1992 and 2005). The OA North 2004-5 survey area comprised c19.5 sqkm of predominantly large tracts of heather moorland, which for the most part has been given over to sports shooting associated with the Rhug estate.

In total, the survey identified 152 new sites, but also involved the enhancement of 16 previously identified sites, which together made a total of 168 sites overall from within the study area. The new sites included a ring cairn, a variant stone circle, a group of large cairns, two areas of prehistoric clearance, two enclosures, five buildings and settlement, two trackways, three quarries, two leats, two trial workings, 25 sheepfolds/shelters, 29 boundary markers and 75 shooting stands.

The evidence of prehistoric sites is limited to a discrete grouping of funerary/ceremonial monuments in the south of the study area around Moel yr Henfaes which are similar in form and location to others in the immediate region. There is also a previously identified summit cairn located on Moel Fferna (NMR 306803) on the northern end of the Berwyn ridge. The present survey identified a variant stone circle (NMR 281160) above the Nant Croes-y-wernen along with an area of clearance further away adjacent to a large glacial erratic. Further to the west on Moel yr Henfaes are the surviving remains of a ring cairn (NMR 281160) on the south end of the hill and a small group of three/four large cairns (NMR 281164) on the west end of the hill. Both sites overlook the lower ground from a small plateaux beneath the main summit. There is no evidence of settlement for this period, possibly because of improvement and the imposition of Cynwyd forest on the fringe of land between the lowlands and moorland uplands where their traditional locations would have been. There was, however, a small clearance cairnfield (NMR 281050) located on Pen y Grog in the north of the area, although this may be of later date.

No sites have been ascribed to the medieval period within the study area; however, there is the potential that settlement structures and some enclosures identified as post-medieval may have there origins in this period.

The surviving post-medieval sites mostly consist of stock management and sportshooting sites scattered liberally across the study area. There are the foundations of a shooting lodge, Liberty Hall (NMR 281012), on the Rhug estate land which is linked by trackways to various lines of grouse shooting butts. Evidence of settlement and agricultural sites upon the area are generally sparse although there was at least one longhouse-type site (NMR 281017) with associated sheepfold on a tributary of Nant Cawrddu in the north. At the fringes of the area are further enclosures and field banks, which may form sites of this or earlier periods, however the overall picture was masked by the plantation of Cynwyd Forest.

The final rationalisation of the moorland into large estates and farms was represented by the distribution of many boundary marker cairns and stones (which are occasionally inscribed) across much of the area. Industrial sites were limited to several small-scale localised quarries and also trial mining for slate. The trial mining, along with evidence of two leats, was associated with Penarth Slate Quarry on the northern fringe of the area.

The survey has highlighted a small but potentially significant group of prehistoric funerary monuments on the west side of the Berwyn **Ridge**. This prompts a need for selective intensive survey, and palaeoenvir onmental sampling to discover further information about these monuments, and any potential contempora rv settlement or agricultural activity.

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We would like to thank Arfon Hughes and Marina Pugh at the Countryside Council for Wales, and we must also thank Jeff Spencer of the Clwyd Powys Archaeological Trust for providing SMR details.

The field survey was undertaken by Peter Schofield, and assisted by Kathryn Blythe. The report was written by Peter Schofield, and the illustrations were by Peter Schofield. The report was edited by Jamie Quartermaine and Alan Lupton. The project was managed by Jamie Quartermaine.

1. INTRODUCTION

1.1 Circumstances of the Project

1.1.1 Oxford Archaeology North (OA North) was invited to undertake an archaeological identification survey of the north portion of the North Berwyn survey area (SJ 310 340 centred) of North Wales on behalf of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) as part of the Uplands Initiative.

1.2 Objectives

- 1.2.1 The objectives of the project were:
 - to promote a wider and deeper understanding of upland areas and their role in Welsh history, in accordance with the aims of the Uplands Initiative
 - to provide an accurate Level 1 survey of all identified monuments (OA North, 2002).
- 1.2.2 To achieve these objectives the study area was subject to a desk-based assessment and walk-over survey. The desk-based study, carried out in May 2004, consisted of a search of both published and unpublished records held by the National Monuments Record of Wales, Clwyd Powys Archaeological Trust and the library and archives at OA North's offices in Lancaster. The field work was carried out to fit in with access availability and weather conditions; it was undertaken in March and April 2005.
- 1.2.3 This report sets out the results of the work, accompanied by a summary gazetteer of new sites (*Appendix 1*).

2. METHODOLOGY

2.1 Project Design

2.1.1 A project design (OA North 2004b) was submitted by OA North in response to a request for archaeological surveys of extensive areas of the Welsh Uplands; it was designed to meet the requirements of a brief by RCAHMW (2004b). The project design provided for an initial archaeological desk-based study, followed by a field identification survey for the following areas: Mynydd Hiraethog, Eastern Snowdonia and North Berwyn. The present report relates to the North Berwyn (North) area only (Figs 1 and 2), and the surveys of Eastern Snowdonia and Mynydd Hiraethog are presented within separate reports (OA North 2005a and 2005b). In all respects the work has been carried out in accordance with the project design (OA North 2004b).

2.2 Desk-Based Survey

- 2.2.1 *National Monuments Record (NMR):* an assessment was made of data held by the RCAHMW, Aberystwyth, which were overlain onto digital 1:10,000 mapping for the study area.
- 2.2.2 *Aerial Photographs:* aerial photography from the NMR office was also consulted along with RCAHMW aerial photographic interpretation of the study area. Information relating to possible new sites was annotated onto the field walking maps in GIS format.
- 2.2.3 *Sites and Monuments Record (SMR):* an assessment was made of data held by the Clwyd Powys Archaeological Trust (CPAT), which was also overlain onto the digital base map for the area.
- 2.2.4 **Ordnance Survey Mapping:** first and/or second edition mapping was available for the entire survey area, and was examined for indications of historic sites not previously represented in the NMR and SMR databases.
- 2.2.5 *World Wide Web:* historic landscape characterisation, parish records, census data and transcripts of some public records were obtained from archives and local histories on the internet. More modern data on the parish was also gleaned, which provided information about recent developments in the area.

2.3 Identification Survey

2.3.1 An identification survey to Level 1 (OA North 2002) was undertaken on the North Berwyn (North) study area. The identification survey represents the minimum standard of record for field investigation, and is aimed at the discovery of previously unrecorded sites. Its objective is to record the existence, location, and extent of any archaeological site. The emphasis of the record lies on the written description, which includes comments on character and condition, and sites have been graded in terms of condition and archaeological significance. Sites already identified within the study area by the NMR and SMR were checked and recorded at the same level of consistency as the newly discovered sites. The whole survey area, including both the unenclosed commons and

surrounding improved and enclosed fringes, was examined. The survey aimed to identify, locate and record archaeological sites and features on the ground and involved four elements: reconnaissance, mapping, description and photography. This generated core information for entry into the NMR and additional archive information, in accordance with the RCAHMW Data Standard for Upland Survey (RCAHMW 2004a).

2.3.2 Each area was walked in transects of between 20m and 50m, depending on local topography and ground cover. The archaeological detail was mapped using Leica differential GPS equipment, which used post-processed corrections from a base station to achieve an accuracy of $\pm 0.25m$. The digital survey data was transferred, via DXF file format, into a CAD system (AutoCAD 14), and was then superimposed onto the digital base map (Fig 3). The descriptive records were input on-site into a database on a Psion portable palm computer; the more complex sites were also sketched onto paper *pro-forma* sheets. A photographic record of the sites was maintained in 35mm black and white print format, colour slides, and also using digital colour imagery; the digital photographs were used to accompany the present report.

2.4 Gazetteer of Sites 2.4.1 All of the information concerning archaeological sites within the assessed area was collated into a gazetteer (*Appendix 1*), which provides brief details of their location, period, type and altitude. Locations are given as eightfigure National Grid References where possible, and the position of each site is indicated on Figure 3.

2.5 Archive

2.5.1 A full archive has been produced to a professional standard in accordance with current English Heritage guidelines (1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The archive is provided in the English Heritage Centre for Archaeology format, both as a printed document and digitally. A synopsis, including the index to the archive and a copy of the report, will be placed in the National Monuments Record, RCAHMW at Aberystwyth and the Clwyd-Powys Sites and Monuments Record, CPAT, Welshpool.

3. TOPOGRAPHical and historical Background

3.1 Location and Topography

- 3.1.1 The survey area of North Berwyn (North) (SJ 310 340 centred) consists of the north-western corner of the moorland massif of the Berwyn mountains in North Wales, which is situated to the south of the villages of Corwen and Llidiart y Parc within the Edeirnon valley and also to the east of the lowland around the river Dee near to the village of Cynwyd (Fig 1).
- 3.1.2 The study area consists of sloping moorland which rises from approximately 330m to between 550m to 580m on the intermediate hills of Bryn-llus, Foel y Gwnyt and Moel yr Henfaes. On the eastern edge of the area are the very northern edges of the central spine of the Berwyn mountains which runs along Cerrig Coediog and up to the summit of Moel Fferna at a maximum height of 630m. The area is characterised as predominantly open heather moorland fringed by semi-improved enclosure on lower farmland on Moel yr Henfaes and the edge of the plantations of Cynwyd forest to the north and west. The area is almost dissected through the middle by the steep valley draining the Afon Trystion and its tributaries down from the Berwyn ridge towards the River Dee. The south side of the survey area at Moel yr Henfaes is drained to the south by the tributaries of Afon Llynor. The north of the study area in part drains into the River Dee to the north from both the Nant Cawrddu and Nant Llechog. The survey area is on the northern fringes of the Berwyn Historic Landscape, designated (C)3 within the Register of Landscapes of Outstanding Historic Interest in Wales (Cadw 1998).

3.2 Geology

3.2.1 The solid geology of the study area consists in the main of Ordovician Pen-ygarnedd shales and underlying limestone of the Bala (Ashgill) series. In the east there are in addition pockets of Silurian mudstones and shale of both the Wenlock and Llandovery series. The overlying soils are a mixture of welldrained fine loamy and silty soils of the Manod association on the sloping edges of the study area along with loamy permeable upland soils of the Hafren association and a pocket of thick amorphous raw peat of the Crowdy 2 association on the higher upland parts of the study area (British Geological Survey 1994, Neville George and Smith 1961; Soil Survey 1983).

3.3 Archaeological and Historical Background

3.3.1 **PREHISTORIC:** THERE WAS VERY LITTLE EVIDENCE OF HUMAN ACTIVITY IN THE IMMEDIATE STUDY AREA DURING THE PREHISTORIC PERIOD WHEN COMPARED WITH THE RICHNESS OF FUNERARY AND RITUAL MONUMENTS FOUND ON THE WEST SIDE OF THE BERWYN RIDGE AREAS ADJACENT TO IT TO THE SOUTH (SILVESTER 2003 AND 2005). THE ONLY PREVIOUSLY IDENTIFIED SITE CONSISTED OF AN OUTLYING SUMMIT CAIRN ON THE VERY NORTHERN END OF THE BERWYN RIDGE AT MOEL FFERNA (NMR 306803). THE CAIRN HAS BEEN HEAVILY MUTILATED IN RECENT YEARS FOR SHELTERS AND AN ORDNANCE TRIGONOMETRIC PILLAR. SURVEY IΤ WAS EXCAVATED BY ANTIQUARIANS IN THE NINETEENTH CENTURY WHO FOUND A CREMATION CONTAINED IN AN ENLARGED FOOD VESSEL (NMR 306803). IT HAD BEEN CONSIDERED THAT THERE WAS POTENTIAL FOR FINDING FURTHER SITES OF THIS PERIOD WITHIN THE STUDY AREA AS MANY SUCH MONUMENTS WERE FOUND BY OTHER SURVEYS ON THE WESTERN SIDE OF THE BERWYN RIDGE (TO THE SOUTH OF THE PRESENT STUDY AREA) OVERLOOKING THE PLAIN CONTAINING THE RIVER DEE (SILVESTER 1992; 2003; 2005). WITHIN THE STUDY AREA OF THE EARLIER SURVEY THERE WAS EVIDENCE OF A STONE CIRCLE AND CAIRNS ON MOEL TY-UCHAF WHICH SEEMED TO BE A FOCAL POINT FOR OTHER FUNERARY AND RITUAL MONUMENTS (SILVESTER 2005). LIKEWISE THERE WERE NUMEROUS FUNERARY CAIRNS OF VARYING SIZES LOCATED ON NATURAL SHELVES AND SPURS BELOW THE MAIN CRESTS OF HILLS (IBID), ALONG WITH RING CAIRNS EVIDENT ON BOTH THE TOP OF THE BERWYN RIDGE AND ON LAND LOWER DOWN (SILVESTER 1992). BY CONTRAST, THERE WERE RELATIVELY FEW SUMMIT CAIRNS AT THE NORTH END OF THE BERWYN MOUNTAINS AND THESE

CONGREGATE ON THE STEEP SUMMITS ALONG THE BERWYN RIDGE. ONLY LIMITED REMAINS OF PREHISTORIC SETTLEMENT WERE IDENTIFIED, AND THIS WAS IN THE NORTH OF THE BERWYNS. IT COMPRISED HUT CIRCLES, ENCLOSURES AND FIELD SYSTEMS, AND WAS LOCATED ON THE LOWER GROUND WHERE THEY HAVE, FOR THE BEEN DENUDED BY MOST PART, LATER AGRICULTURAL ACTIVITY. IN ADDITION, THERE WERE AREAS OF CLEARANCE CAIRNFIELDS WHICH WERE POTENTIALLY ALSO OF PREHISTORIC DATA (SILVESTER 2005).

- 3.3.2 **Roman Medieval:** prior to the present survey no sites had been identified from the study area between the end of the Bronze Age and the beginning of the Post-Medieval period. There was a general paucity of Roman sites in the region although, further to the south, a campaign road was identified that links the Ceiriog and Dee valleys (Silvester 2005). Medieval settlement to the south of the present study area consisted of platforms and long houses with associated strip fields defined by low stony banks which occupied the lower reaches of the hillsides on the west edge of the Berwyn hills (Silvester 2000 and 2003). There is the potential, as elsewhere in the Berwyns, for the remains of seasonal transhumant settlement which was most commonly found on more elevated ground, and the sheltered tributary stream valleys. Within the present study area are numerous modern sheepfolds shown in such locations and it has been shown in the Berwyn mountains, and in many parts of upland Wales, that these sites often re-use the foundations of earlier structures (OA North 2004a).
- 3.3.3 **Post-Medieval:** only a few pre-survey sites were recorded in the NMR/SMR from this period, and the majority were identified in the SMR through cartographic evidence as there has been no previous ground survey undertaken here. The farming settlement of the period was located in the lower fringes of the study area, just outside the boundary in the south around Moel yr Henfaes and adjacent to the Cynwyd Forest further north; indeed, there were few permanent farmed settlements situated at altitude along the western side of the Berwyn Ridge (Silvester 2003). In some respects the forestry plantation of Cynwyd Forest, which was planted on Rhug estate land in 1925 (Williams 1992), has masked the boundary between upland and lowland for much of the study area around Corwen. The documented sites were predominantly agricultural in nature with numerous sheepfolds across the study area, which, for the most part, hug the sheltered edges of tributary streams running off both the north and west of the hills (NMR 281003-2810011 and 2810013-2810015).
- 3.3.4 The parcelling-up of the moorland and the development of heather moorland shooting estates in the nineteenth century can be seen throughout the north of the Berwyn mountains (Silvester 2005) and was evidenced by the numerous boundary stones, shown on the Ordnance Survey mapping, defining the parish

and estate boundaries; only one has been previously recorded above Celyngoed farm (NMR 281002). The boundaries demarcating the grazing and shooting lands of farms and estates and the evidence of multiple lines of grouse shooting butts across the moorland (shown on the Ordnance Survey mapping) indicate that game shooting was the dominant land-use at least in the nineteenth and twentieth centuries. Indeed, much of the study area was currently given over to shooting for the Rhug estate and at the centre of the study area was the remains of Liberty Hall (NMR 281012, Plate 5) a ruinous shooting lodge dating back to at least the 1830s (OS 2 inch map) and which was evidently still usable in the Second World War when members of the Royal Observation Corps used it as a lookout post (Williams 1992). In addition, some of the sheepfolds were located adjacent to lines of grouse shooting butts and may in fact have once been used as localised shelters for shooting parties (eg NMR 281011 and 281013).

3.3.5 There was no evidence of extractive industries recorded within the study area itself; however, as elsewhere in the north Berwyns, there would have been localised stone/slate extraction and peat cutting for adjacent farms and communities but with larger concerns springing up in discrete places (Silvester 2005). There is evidence on the northern and eastern edges of the study area for commercial extraction; 'Old mine' workings are shown on the current mapping, which relate to the Penarth Slate Quarry, located on Pen y Grog to the north, and the Deeside Slab Quarries to the east, both of which were shown expanding from the first edition Ordnance Survey mapping onwards.

4.1 Desk-Based Study Summary

- 4.1.1 Cartographic Evidence: examination of the historic maps, the Ordnance Survey (OS) 2 inch mapping of the 1830s and the first and subsequent editions of the 6" to 1 mile map provide an insight into the development of the enclosed lands; however, there was little significant difference between the OS first edition mapping (1879) and that of today. The layout of the enclosure fields at the edge of the study area remain relatively unchanged, but, the major imposition of the plantation of Cynwyd Forest has masked much of the boundary between the unenclosed moorland and the upper reaches of enclosed farmed land. Some of the long straight parish and estate boundaries had been established by the time of the OS first edition mapping onwards, especially along the eastern edge of the study area where boundary stones were shown marking out the divisions. In later years additional, internal fenced divisions were shown across the moorland dividing it up into large parcels. To the south, on Moel yr Henfaes, there was more modification and improvement with small fringing improved fields established to the south and west, along with larger upland unimproved moorland parcels and relatively recent large fields on the northern side.
- 4.1.2 The historic mapping indicates that one of the principle uses for the moorland of the study area was for sport shooting. The OS 2 inch mapping shows the cairn on top of Moel Fferna, also described as a 'Grouse Box', which had evidently been adapted as a shelter for shooting parties. The extent of the shooting estate practices was seen in the later OS mapping where long lines of grouse butts, with associated trackways, criss-cross the moorland, and some of the sheepfolds also seem to have been associated, either deliberately adjacent to the trackways or providing additional shelters. Evidence for other activities upon the study area were limited to small localised quarries located upon the fringes of the area and also evidence of water being redirected off Nant Llechog (possibly by two leats) towards the Penarth Slate Quarry in the north of the study area (OS first edition map)
- 4.1.2 *Aerial Photographic Interpretation:* digital aerial photographic mapping and interpretation was supplied by the RCAHMW under the auspices of the Uplands Initiative. This identified many trackways and lines of grouse butts crossing over the heather moorland in addition to those identified from the OS mapping; there were also localised areas of peat cutting around Moel Fferna. Several sheepfolds were identified along with areas of boundary bank on the fringes of the study area. The interpretation suffered due to the extensive heather moorland which has covered the majority of the study area throughout the twentieth century and, consequently, it was found that many of the trackways and peat cuttings were difficult to identify on the ground. Several of the lines of grouse butts identified from aerial photographic sources were confirmed through fieldwork but equally many more, around Moel yr Henfaes in particular, could not be identified on the ground. On the other hand the aerial

photographic interpretation missed a large proportion of the lines of shooting butts that were subsequently identified through fieldwork.

4.1.3 *GWYNEDD SITES AND MONUMENTS RECORD (SMR), NATIONAL MONUMENTS RECORD OF WALES (NMR):* IN TOTAL, 16 UNDUPLICATED SITES WERE IDENTIFIED BY THE SMR AND NMR, COMPRISING TWO BRONZE AGE SITES, ONE UNKNOWN SITE AND 13 OF POST-MEDIEVAL DATE (TABLE 1, FIG 3).

5. survey results

5.1 Introduction

- 5.1.1 The study area incorporated approximately 19.5 sqkm of enclosed and unenclosed land and the survey examined both known and previously unknown sites which ranged in date from the prehistoric to the Post-Medieval periods. While there were examples of single monuments, many were part of larger groups of sites, which, for the most part, were associated with sport shooting. All the sites identified by the documentary study were examined, their locations and extent were updated on the mapping, as required. and the site descriptions were enhanced. Both new and old sites are indicated on Figure 3.
- 5.1.2 *Previously Recorded Sites:* the desk-based study identified 16 pre-survey sites, comprising one NMR site and 15 unduplicated SMR sites that were also updated and given NMR numbers. The greater majority of the known sites were confirmed by the identification survey but one site (boundary stone NMR 281002), despite extensive searching, could not be located.
- 5.1.3 *New Sites:* in total, 152 new sites were identified representing a substantial numerical increase in the number sites within the study area (they are summarised according to their broad date below in Table 1).

Period	Pre-Survey Number	Post-Survey Number	Numerical Increase
Prehistoric	0	3	3
Bronze Age	2	4	2
Post-Medieval	13	155	142
Unknown	1	6	5
Total	16	168	152

Table 1: Pre- and Post-Survey Site Numbers

5.1.4 *Altitude range of sites:* the overall site density was nine sites per sqkm, which was spread according to altitude as shown in Table 2. The greatest density of sites was between the 475-499 OD range.

Height Range	Existing Sites	New Sites	Total
250-274m	0	1	1
275-299m	0	1	1
300-324m	0	1	1
325-349m	0	4	4
350-374m	1	6	7
375-399m	1	17	18
400-424m	3	21	24

425-449m	2	11	13
450-474m	0	19	19
475-499m	3	23	26
500-524m	1	18	19
525-549m	3	8	11
550-574m	0	8	8
575-599m	0	13	13
600-624m	0	1	1
625-649m	2	0	2
Total	16	152	168

Table 2: Pre- and Post- survey site numbers with respect to altitude

5.1.5 *Range of site types:* the sites identified from the present survey, and previously identified within the record, fall into 15 general types, which are defined as shown in Table 3.

Туре	Existing Sites	New Sites	Total
Boundary, Boundary Bank, Boundary Stone, Marker Cairn, Marker Stone	1	29	30
Building, Farmstead, Structure, Wall	0	4	4
Cairn, Cairn Cemetery, Cairnfield, Clearance Cairn, Ring Cairn	1	5	6
Deserted Rural Settlement	0	1	1
Enclosure	0	2	2
Event	1	0	1
Hunting Lodge	1	0	1
Leat	0	2	2
Peat Stand	0	1	1
Quarry	0	3	3
Sheepfold, Sheep Shelter, Shelter	12	25	37
Shooting Stand	0	75	75
Stone Circle	0	1	1
Trackway	0	2	2
Trial Mine	0	2	2
Total	16	152	168

Table 3: Range of Site Types

5.2 Prehistoric

- 5.2.1 The only prehistoric site identified within the study area prior to the present survey was the disturbed summit cairn on Moel Fferna (NMR 306803). The present survey, however, discovered five monuments of prehistoric, or more specifically Bronze Age, date which were for the most part in and around Moel yr Henfaes and the tributaries of Afon Trystion in the southern part of the study area. The location of these monuments here is not surprising as much has been said about the clustering of monuments around the Moel Ty-uchaf stone circle in a similar location to the immediate south of the present study area (Silvester 2005) (Fig 1).
- 5.2.2 Two monuments were discovered adjacent to the south side of Nant Croes-ywernen tributary stream which feeds into the Afon Trystion, and just above the plantation of Cynwyd Forest. The first was a clearance cairn of some antiquity (NMR 281107, Plate 3) which has been piled against the side of a large glacial erratic stone next to the stream. It has been re-used as a small shelter at a later date, but the cairn clearly predates the adaptation. The second more important monument is a small variant stone circle (NMR 281135, Plate 1) which is located on a small natural spur of land overlooking Cynwyd Forest and down onto the plain below. It consists of the surviving western half-portion of a circle with four upright stones surviving. The circle would have originally measured some 8.5m-9m in diameter and the centre of the circle is flattened and raised as a platform above the surrounding area. There are no visible internal features but there was possibly an external shallow ditch.
- 5.2.3 There are two further sites located on the Moel yr Henfaes, and consist firstly of a well preserved ring cairn located on the south side of the hill and a group of three funerary cairn on the west side of the hill. The ring cairn (NMR 281160, Plate 2) is located at the edge of a plateau beneath the main crest of the hill and consists of a circular ring bank of stones some 11.5m in diameter. There was one orthostatic stone surviving within the shallow bank which protrudes above the rest of the bank. There were no obvious internal features within the ring but on the external west side of the bank a small possible funerary cairn was attached. The second site consists of a group of three or possibly four cairns (NMR 281164) which were set in a linear layout and were located on a small plateau on the west side of the Moel yr Henfaes hill. The cairns vary in shape from circular through oval to sub-square and in size from 4m-5m in diameter by up to 0.3m in height. Each of the cairns was constructed of a well-packed heap of stones with a central depression. The linear arrangement is unlikely to be coincidental and may potentially indicate that they were linked by some form of linear feature such as a boundary line, that is no longer evident on the surface.
- 5.2.4 The distribution of these putative prehistoric monuments compliments that found from previous surveys (Silvester 1992, 2005) with monuments typically overlooking the plain to the west and having an association with prestige monuments such as stone circles. In particular, the sites from the present survey have a spatial association with the putative variant stone circle and are set below the crests of hills.
- 5.2.5 In the northern part of the study area there was less evidence of prehistoric activity which may be a symptom of forestry plantation and quarrying masking

some sites. The only site of potential prehistoric date was a small localised clearance cairnfield located on a flat area of ground between small rocky hillocks on Pen y Grog (NMR 281050). It consists of six sub-circular clearance cairns measuring up to 4m in diameter by 0.5m in height and two short sections of stone bank all set within a flattened well-drained area that was up to 45m square. Although this cairnfield was probably of prehistoric date, there was a further cairnfield to the north, partially outside the study area, which was probably of later date. It had field banks and clearance cairns within them, and was of a different form to the Pen y Grog cairnfield, suggesting that it was of later, possible medieval date.

5.2.6 *Iron Age:* the absence of Iron Age activity reflects either that the monuments have not been recognised, or that there was an episode of abandonment of the moorlands, potentially as a result of the climatic decline in the early Iron Age (Lamb 1981, 55). The end of the Bronze Age marked the end of the period of ceremonial and funerary monument building on the moorland of the Berwyn mountains. The readily identifiable sites of Iron Age settlement, other than hillforts to the north of the study area at Caer Drewyn, were not present in the study area

5.3 Roman and Medieval

5.3.1 No Roman sites were documented within the immediate study area. There were no documented sites directly ascribed to the Medieval period within the study area and the present survey did not add any definitive new examples. There is the potential that the plantations of Cynwyd Forest have masked areas on the fringes of the current enclosed land and moorland boundary which are traditionally the locations for more permanent medieval upland settlement within North Berwyn (Silvester 2005). There are, however, some newly discovered more transient and possibly seasonal structures within the study area and there may have been an overlap between some of these Post-Medieval-dated settlement sites.

5.4 Post-Medieval

Agricultural Landscape: in total, 155 sites have been ascribed to the Post-5.4.1 Medieval period, and form the majority of the total number of identified sites (see Table 1). The sites reflect the relatively recent exploitation of large tracts of the open peat moorland that forms the northern edge of the Berwyn mountains. Many sites reflect the dispersed agricultural exploitation of the moorland for stock management, and comprise numerous sheepfolds and shelters scattered across the whole study area. Some of these structures may well have earlier origins and may indeed have once been habitable. On the north side of the study area, for example, are the foundations of a rectangular possible longhouse-type structure sat upon a platform and located upon the west side of a tributary of Nant Cawrddu (NMR 281017); it is in close proximity to a smaller sheepfold structure and reflects the continuity of activity at such places. On the opposite side of Bryn-llus, above the forestry plantation and Celyngoed farm, is a small D-shaped sheepfold, in an area that has three circular earthen enclosures (NMR 281018, Plate 4). The enclosures were flattened, cleared of stone, lynchetted and were presumably under agriculture at some point although there is no evidence of a house structure surviving for this site. The implication is again that the sheepfold reflects the latest episode of a much earlier agricultural tradition at the site.

- 5.4.2 The dispersed sheepfolds upon the moorland have a similar morphology and build belying their contemporary construction as part of the management on a large estate; a particularly good example is NMR 281009 (Plate 6). Other agricultural structures include a formerly roofed building now marked as a sheepfold on the mapping and located above the plantation around Afon Trystion in the centre of the study area (NMR 281086). Further upstream is a previously identified sheepfold on the edge of Nant Fach (NMR 281005, Plate 7), which has a small roofed shepherds shelter surviving on the southern side. In addition many of the lines of grouse shooting butts have a single sheepfold nearby and these may once have served as shelters for sports shooters.
- 5.4.3 There are several places on the fringe of the study area where the change in agricultural boundary layout can be seen. In the north there is part of a large curving boundary bank extending south from the forestry plantation of Cynwyd Forest (NMR 281041) although, because part of the site is overlain by forest, it is not known if there was any settlement associated with it. Further to the east at Pen y Grog, the RCAHMW aerial photographic interpretation identified additional surviving field boundaries and clearance cairns (outside the present study area) to the east of Penarth Slate Quarry. The present survey found evidence of a linear boundary bank and some clearance cairns (NMR 281046-281047) heading onto the moorland to the south of this, although it seemed to be associated with relatively late improvement.
- 5.4.4 *Land Enclosure:* the enclosure and demarcation of moorland for agricultural grazing and shooting estates can be seen with the survival of numerous boundary marker stones and cairns within the study area. Many of the markers are of some antiquity as one of the 'pile of stones' was shown on the Ordnance Survey 2 inch mapping of the 1830s (NMR 281159). The early boundaries still survive with occasional boundary stones, although in later years fenced boundaries became predominant. Indeed, on the eastern end of the study area there is a boundary containing closely packed orthostatic slabs which have been drilled for use as wire fences (NMR 281137- NMR 281153). Elsewhere are more dispersed single boundary stones which were for the most part blank, but some are inscribed with the initials of an estate or farmstead such as the stone on Cerrig Coediog marked 'WWW' signifying that side of the boundary as belonging to the Wynnestay estate (NMR 281154, Plate 8).
- 5.4.5 *Sport Shooting:* there was a profusion of archaeological sites associated with the exploitation of the moorland as a recreational shooting estate. Liberty Hall shooting lodge which has been in evidence since at least the 1830s survives in a much ruinous state (NMR 281012, Plate 5), and was set within a network of trackways across the moorland which run to areas of grouse shooting butts and possible shooting shelters (Fig 3). At some point, the summit cairn at Moel Fferna was modified into several shooting shelters and was marked on the Ordnance Survey 2 inch mapping as a 'Grouse Box'. The most numerous sites are the 75 grouse shooting stands which form lines and clusters associated with trackways on the northern half of the study area. Some of the butts identified through the RCAHMW aerial photographic interpretation and on the current OS

mapping could not be identified through the present fieldwork reflecting dense heather vegetation cover; however a lot of these documented sites and new unmapped examples were recorded.

5.4.6 *Extractive Industry:* raw materials have been exploited and extracted intermittently and in a localised manner within the study area as a whole. The aerial photographic interpretation identified areas of peat cutting around the summit of Moel Fferna however this was impossible to record during the fieldwork due to ground cover and extensive erosion. There were small localised quarries on the edge of the study area associated with the winning of stone for field walls on Moel yr Henfaes (NMR 281165 and NMR 281166) and on Creigiau Llangar to the north (NMR 281085). Commercial exploitation in the area was relatively limited although there was evidence of trial mining of slate in the north of the study area around Bryn-llus (NMR 281082) and above the more extensive workings of Penarth Slate Quarry at Pen y Grog (NMR 281045). The latter site also had two surviving leats (one of which was shown on the OS first edition mapping) which diverted water from a tributary of Nant Llechog towards the main quarry workings (NMR 281043 - NMR 281044).

6. Conclusion

6.1 Discussion

- 6.1.1 The survey has identified a moderate density of sites for the most part within the north and centre of the study area and mostly these were associated with Post-Medieval grouse shooting and stock management, with more sparsely spaced sites to the south. Previous survey had highlighted very few sites, and these were predominantly identified through cartographic evidence; the present survey has increased the number of identified monuments by 1050%.
- 6.1.2 In terms of prehistoric sites there was no evidence for settlement remains in the area which may reflect the impact of improvement and forestry planting on the fringes of the study area where these sort of sites would be expected to be. There are, however, some remains of potential prehistoric clearance which may hint at agriculture. Significantly, there are potential funerary / ritual monuments located in the south of the study area around, and to the east of, Moel yr Henfaes, which include a ring cairn (NMR 281160) and a potential variant stone circle (NMR 281135). These sites conform to the pattern suggested for the distribution and location of monuments on the west side of the Berwyns (Silvester 2005).
- 6.1.3 The study area has a small and dispersed group of potential transhumant settlement and agricultural sites upon its fringes which are of Post-Medieval or potentially earlier date. In most cases there are Post-Medieval stock shelters now occupying the sites and there is an implication that the transhumant structures were from the medieval period and that there was a continuity of occupation, albeit change of function, from the medieval through to the post-medieval period.
- 6.1.4 The majority of Post-Medieval sites consisted of stock management and sport shooting features and include many sheep folds, boundary stones, shelters and lines of grouse shooting butts. Agricultural improvement has been limited with the heather moorland being established since at least the early nineteenth century and in the north and centre of the area the imposition of Cynwyd forest has masked earlier field-systems. The south of the area around Moel yr Henfaes has improved fields on the fringe with enclosed moorland higher up, but recent improvement has taken place on the north end of the Moel yr Henfaes hill. The groups of shooting butts were connected to the lowlands by trackways, which also criss-cross the moorland and link up to the main shooting lodge at Liberty Hall.

7. recommendations

7.1 Recommendations for Further Work

- 7.1.1 The survey has identified a group of sepulchral monuments comprising a ring cairn (NMR 281160) and a variant stone circle (NMR 281135) upon the moorland and also an alignment of smaller cairns of uncertain function. Silvester has demonstrated that sites in this area typically form clusters around ceremonial sites and within specific landscape contexts (Silvester 2005). It is, therefore, recommended that investigation in the form of palynological sampling be undertaken within the environs of the group to test for agricultural exploitation in the vicinity.
- 7.1.2 In addition, in order to examine the detailed character of these sites, further intensive survey should be carried out to examine the inter-relationship of the monuments and examine the vistas out from them. Such a study could potentially expand on the methodology developed for the Simonside Survey, Northumberland (LUAU 1999). This survey was an objective recording programme linked into a phenomenological study of the inter-relationships of the component monuments and was an attempt to determine whether the monuments formed part of a cohesive and contemporary funerary landscape.

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APPENDIX 1 Gazetteer of new sites

NPRN	NGR	ТҮРЕ	PERIOD	ALTITUDE
281001	SJ11683979	EVENT	Bronze Age	630
281002	SJ08504088	BOUNDARY STONE	Unknown	540
281003	SJ10033925	SHEEP FOLD	Post-Medieval	410
281004	SJ10263894	SHEEP FOLD	Post-Medieval	400
281005	SJ10523883	SHEEP FOLD	Post-Medieval	420
281006	SJ10943919	SHEEP FOLD	Post-Medieval	490
281007	SJ11013931	SHEEP FOLD	Post-Medieval	520
281008	SJ07694229	SHEEP FOLD	Post-Medieval	350
281009	SJ08234145	SHEEP FOLD	Post-Medieval	430
281010	SJ08344152	SHEEP FOLD	Post-Medieval	425
281011	SJ08924156	SHEEP FOLD	Post-Medieval	485
281012	SJ08904098	HUNTING LODGE	Post-Medieval	540
281013	SJ09134207	SHEEP FOLD	Post-Medieval	395
281014	SJ10504111	SHEEP FOLD	Post-Medieval	480
281015	SJ10704075	SHEEP FOLD	Post-Medieval	540
281016	SJ08144242	SHEEP FOLD	Post-Medieval	355
281017	SJ07974248	DESERTED RURAL	Post-Medieval	330
281018	SJ07814078	FARMSTEAD	Post-Medieval	410
281019	SJ07514089	SHELTER	Post-Medieval	420
281020	SJ07404106	MARKER CAIRN	Post-Medieval	460
281021	SJ08954089	SHOOTING STAND	Post-Medieval	545
281022	SJ08964093	SHOOTING STAND	Post-Medieval	540
281023	SJ08974098	SHOOTING STAND	Post-Medieval	535
281024	SJ08984102	SHOOTING STAND	Post-Medieval	530
281025	SJ09084127	SHOOTING STAND	Post-Medieval	505
281026	SJ09134130	SHOOTING STAND	Post-Medieval	500
281027	SJ09194133	SHOOTING STAND	Post-Medieval	490
281028	SJ09244136	SHOOTING STAND	Post-Medieval	480
281029	SJ09274138	SHOOTING STAND	Post-Medieval	480
281030	SJ09304139	SHOOTING STAND	Post-Medieval	475
281031	SJ09334140	SHOOTING STAND	Post-Medieval	470
281032	SJ09364143	SHOOTING STAND	Post-Medieval	465
281033	SJ09414145	SHOOTING STAND	Post-Medieval	460
281034	SJ09464148	SHOOTING STAND	Post-Medieval	455
281035	SJ09504150	SHOOTING STAND	Post-Medieval	450
281036	SJ09574154	SHOOTING STAND	Post-Medieval	440
281037	SJ09624157	SHOOTING STAND	Post-Medieval	435
281038	SJ09674155	MARKER STONE	Post-Medieval	435
281039	SJ09514114	SHEEP FOLD	Post-Medieval	475
281040	SJ08604248	SHEEP FOLD	Post-Medieval	350
281041	SJ08704262	ENCLOSURE	Unknown	320
281042	SJ10204230	WALL	Post-Medieval	350
281043	SJ10464212	LEAT	Post-Medieval	390
281044	SJ10634214	LEAT	Post-Medieval	395
281045	SJ10884214	TRIAL MINE	Post-Medieval	410
281046	SJ11034220	ENCLOSURE	Unknown	395

281047	SJ11054220	CLEARANCE CAIRN	Unknown	395
281048	SJ11154203	SHEEP FOLD	Post-Medieval	420
281049	SJ10914178	MARKER CAIRN	Post-Medieval	455
281050	SJ11004202	CAIRNFIELD	Prehistoric	425
281051	SJ09264211	TRACKWAY	Post-Medieval	370
281052	SJ08974165	SHELTER	Post-Medieval	470
281053	SJ08874131	SHOOTING STAND	Post-Medieval	510
281054	SJ08854141	SHOOTING STAND	Post-Medieval	505
281055	SJ08844147	SHOOTING STAND	Post-Medieval	505
281056	SJ08834151	SHOOTING STAND	Post-Medieval	500
281057	SJ08854159	SHOOTING STAND	Post-Medieval	490
281058	SJ08884162	SHOOTING STAND	Post-Medieval	485
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281061	SJ08924168	SHOOTING STAND	Post-Medieval	475
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281063	SJ08934179	SHOOTING STAND	Post-Medieval	460
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	SJ08734211	SHOOTING STAND	Post-Medieval	415
	SJ08744217	SHOOTING STAND	Post-Medieval	405
	SJ08754224	SHOOTING STAND	Post-Medieval	395
	SJ08604223	SHELTER	Post-Medieval	400
	SJ08764231	SHOOTING STAND	Post-Medieval	390
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	SJ07504177	SHEEP FOLD	Post-Medieval	375
	SJ07504203	SHEEP FOLD	Post-Medieval	350
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281101	SJ10343983	STRUCTURE	Unknown	525
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281154	SJ10183745	BOUNDARY STONE	Post-Medieval	590
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281157	SJ09213884	BOUNDARY STONE	Post-Medieval	380
281158	SJ09953722	BOUNDARY STONE	Post-Medieval	580
281159	SJ07743859	MARKER CAIRN	Post-Medieval	585
281160	SJ07473869	RING CAIRN	Bronze Age	570
281161	SJ07913937	BOUNDARY BANK	Unknown	430
281162	SJ08893891	SHEEP FOLD	Post-Medieval	390
281163	SJ07623822	TRACKWAY	Post-Medieval	520
281164	SJ06733926	CAIRN CEMETERY	Prehistoric	445
281165	SJ06263931	QUARRY	Post-Medieval	400
281166	SJ06243918	QUARRY	Post-Medieval	390
281167	SJ06413886	BOUNDARY STONE	Post-Medieval	400

illustrations

Figure 1: Location Map

Figure 2: North Berwyn (North) Survey Area

Figure 3: Site Distribution showing both pre- and post-survey sites

Plates

- Plate 1: Nant Croes-y-wernen variant stone circle (NMR 281135)
- Plate 2: Moel yr Henfaes ring cairn (NMR 281160)
- Plate 3: Nant Croes-y-wernen clearance cairn (NMR 281107)
- Plate 4: Celyngoed farmstead (NMR 281018)
- Plate 5: Liberty Hall shooting lodge (NMR 281012)
- Plate 6: Creigiau Llangar sheep fold I (NMR 281009)
- Plate 7: Nant Fach sheep fold I (NMR 281005)
- Plate 8: Cerrig Coediog boundary stone XVIII (NMR 281154)



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Plate 7: Nant Fach sheep fold I (NMR 281005)

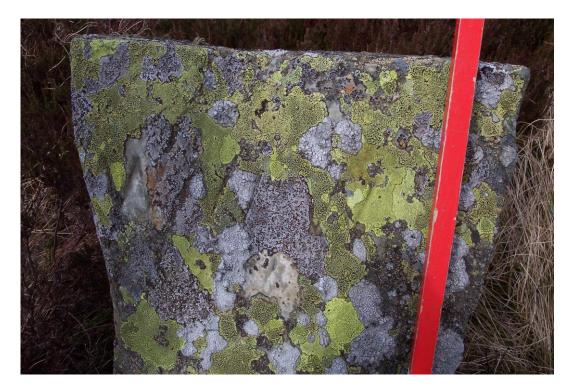


Plate 8: Cerrig Coediog boundary stone XVIII (NMR 281154)